

# Northwest Territories

## Regulations for Oil and Gas Operations in H<sub>2</sub>S Areas

1. Are there any devices/alarms required of operators that have H<sub>2</sub>S on location, and if so, at what ppm H<sub>2</sub>S are they required to be set?

There are no regulatory requirements for H<sub>2</sub>S devices / alarms in the *Oil and Gas Operations Act*, its regulations or Office of the Regulator of Oil and Gas Operation's (OROGO's) Guidelines.

However, OROGO requires that Safety Plans (submitted to and approved by the Regulator during the application process for an activity) require personal 4-head monitors for all personnel during all operations where H<sub>2</sub>S is present or suspected.

The industry standard for these alarms is to go off at 10ppm.

2. Are there any postings required of operators that have H<sub>2</sub>S on location, and if so, under what circumstances?

There are no regulatory requirements for postings in the *Oil and Gas Operations Act*, its regulations or OROGO's Guidelines.

However, OROGO requires that Safety Plans (see above) require signage at the lease entrance during operations and on any building where there is a chance for H<sub>2</sub>S to build up.

3. How are facilities at which H<sub>2</sub>S is present tracked?

OROGO manually tracks facilities where H<sub>2</sub>S is present. It does not regulate enough facilities to require a more elaborate method.

4. What level or levels of H<sub>2</sub>S are considered actionable and under what circumstances?

OROGO would action any H<sub>2</sub>S at 10ppm (alarm triggering level) or above as an incident under the *Oil and Gas Drilling and Production Regulations* and work with the company to ensure the source is secured.

OROGO does not have many H<sub>2</sub>S facilities or wells, none of which are in production. An H<sub>2</sub>S release would only become known when people are on site during well interventions or well inspections.

5. Are any additional standards for rules implemented for H<sub>2</sub>S other than the following?
  - a. ANSI- American Nation Standards Institute.
  - b. API – American Petroleum Institute.
  - c. EPA – Environmental Protection Agency.

None of the above-mentioned standards apply in OROGO's jurisdiction (NWT, Canada). OROGO follows the guidance in the H<sub>2</sub>S Alive course provided by Energy Safety Canada.

6. Does your state have any specific H<sub>2</sub>S safety regulations? If so, please list them below.

There are no specific H<sub>2</sub>S safety regulations under the *Oil and Gas Operations Act*. However, Schedule O of the *Occupational Health and Safety Regulations* (under the *Safety Act* R.S.N.W.T. 1988, c.S-1) sets an 8-hour occupational exposure limit (10 ppm) and a 15-minute occupational exposure limit (15 ppm) for H<sub>2</sub>S.

7. What are the purposes of the H<sub>2</sub>S regulations?
  - a. Public safety - YES
  - b. Worker safety – YES (primary purpose)
  - c. Other: Environmental (impacts to fauna and vegetation suppression)

### **Safety Procedures for Field Inspectors**

8. What type of training is required for Field Inspectors?

Energy Safety Canada's H<sub>2</sub>S Alive

9. Are certifications required for Field Inspectors?

H<sub>2</sub>S Alive

10. Do you have an H<sub>2</sub>S safety specialist, and if so, what is the specialist's level of expertise?

No

11. Do state inspectors check H<sub>2</sub>S levels, or do they require operators to check?

Operators are required to monitor H<sub>2</sub>S levels. Inspectors wear personal H<sub>2</sub>S monitors on site at all times.

12. If state inspectors check H<sub>2</sub>S levels, what are the required procedures/protocols for checking to determine H<sub>2</sub>S levels?

N/A

13. How often are readings required to be made? By whom? How/who keeps up with those readings?

H2S levels are monitored by the operator (and by inspectors when on site) throughout operations on a Sour Gas Site and upon entrance to any building or when the well bore conditions change during operations.

14. Where are Field Inspectors most likely to check for H<sub>2</sub>S?

- a. Top of stock tanks
- b. Wellheads - YES
- c. Gas streams - YES
- d. Other: \_\_\_\_\_
- e. Not applicable

15. How do Field Inspectors respond to an H<sub>2</sub>S complaint? (Please include in the response information on any requirements about when the Field Inspector must be accompanied by another person.)

As OROGO's sites are remote and far away from any communities or human habitation, OROGO has never received an H<sub>2</sub>S complaint from the public.

If there is an H<sub>2</sub>S release on site, OROGO works with the company administratively on developing mitigative measures for implementation and final repair requirements. Repairs are verified by an inspector upon completion.

If there was ever an installation close to a community, OROGO would work with the operator and other regulators, including the GNWT Emergency Management Office, to develop a plan of action in the event of a release as part of the operator's Safety Plan and Contingency Plan (both submitted to and approved by the Regulator during the application process for an activity).

16. Are inspectors required to wear H<sub>2</sub>S monitors? If so, what type of equipment?

Yes. OROGO uses 2-year BW Clip H<sub>2</sub>S 10-15 ppm personal monitors.